

## **ABSTRACT**

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A system and method for product planning that require conversion among various alternative units of measure. The system receives three inputs: (1) a conversion relation between a base unit of measure and an alternative unit of measure, (2) a degree of precision for storage, and (3) a length of conversion factor allocated by the system. The system determines an increment quantity, which represents the smallest quantity of the material used as a base quantity in the manufacturing and design process, while maintaining the degree of precision for storage and the length of the conversion relation. The system then adjusts the conversion relation between the base unit of measure and the alternative unit of measure to correspond to the increment quantity. The increment quantity and the adjusted conversion relation are stored in the system. Theretofore, the system adjusts all input data, regardless of whether it was entered by a user or by another application in the system, using the increment quantity and the adjusted conversion factor, and maintains all data as multiples of the increment quantity.